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ABSTRACT

The central purpose of a study was to ascertain the views of business and industry toward vocational education in Alabama. The objectives were (1) to determine the familiarity of business and industry with the State's vocational education programs, (2) to determine the extent business and industry feels that the State's public vocational education programs are providing trained manpower in sufficient quantity to meet their needs, (3) to determine the extent business and industry is providing its own training programs, (4) to determine the extent business and industry feels that the State's public vocational education programs are preparing prospective employees to function as qualified, responsible workers, and (5) to determine what suggestions business and industry has for improving the State's public vocational education program. A sample of 24,000 firms was selected from the Dun and Bradstreet market identifier file. The sample represented approximately 50% of the business and industry firms in the State and was selected on a random basis across all industry groups and all size categories. A questionnaire consisting of eleven items (program familiarity, "hard-to-fill" job vacancies, desired training levels, job training for new employees, pre-supervisory and supervisory training, employee job training, comparison of vocational graduates with other employees, rating of vocational students, involvement in vocational education programs, program improvement by program delivery actions, and program improvement through the instructional process) was developed by the State Advisory Council, reviewed by an appointed committee of Council members, and field tested by the research staff of Dun and Bradstreet. A total of 1,883 usable returns were received, representing an overall return rate of 8%. Data is presented and nineteen findings and conclusions are enumerated in this report. (HD)

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VOCATIONAL EDUCATION IN ALABAMA

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A SURVEY OF THE OPINIONS OF BUSINESS AND INDUSTRY

ALABAMA ADVISORY COUNCIL ON VOCATIONAL EDUCATION
P. O. BOX 27
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CE 009 407

VOCATIONAL EDUCATION IN ALABAMA

INTRODUCTION

This report is a summary of a basic data report of a research study conducted for the Alabama Advisory Council on Vocational Education by the Marketing Service Division, Research Services Department, Dun and Bradstreet, New York, New York.

The central purpose of the study was to ascertain the views of business and industry toward vocational education in Alabama. More specifically, the objectives were:

1. To determine the familiarity of business and industry with the State's vocational education programs.
2. To determine the extent business and industry feels that the State's public vocational education programs are providing trained manpower in sufficient quantity to meet their needs.
3. To determine the extent business and industry is providing its own training programs.
4. To determine the extent business and industry feels that the State's public vocational education programs are preparing prospective employees to function as qualified, responsible workers.
5. To determine what suggestions business and industry has for improving the State's public vocational education programs.

METHODOLOGY

A research design was used to optimize penetration into the business and industry community as well as minimize bias. A sample of 24,000 firms was selected from the Dun and Bradstreet market identifier file. The sample represented approximately 50 percent of the business and industry firms in the State and was selected on a random basis across all industry groups and all size categories. Therefore, firms appeared in the sample in proportion to their occurence in the state.

A questionnaire consisting of eleven items was developed by the staff of the State Advisory Council and reviewed by an appointed committee of Council members. The questionnaire was field tested by the research staff of Dun and Bradstreet and then mailed to the chief executive, by name, at each of the sample firms.

The questionnaires were coded to facilitate data analysis by industry groups and county groupings in the State. The basic data report displays information from the total state sample and eight standard industry groups. Data are also displayed by 18 county groups.

DISCUSSION

A total of 1,883 useable returns were received, representing an overall return rate of 8 percent. The percent return by industry groups closely approximates the proportion to their occurence in the State.

A review of the descriptive statistics in the basic data report reveals very little differences in the distribution of responses for the questionnaire items between and among the respondents by total group, industry groups, and county groupings. The information contained in this report deals with the responses from the total group.

1. How familiar are you with the vocational education programs in Alabama? (check appropriate blocks)

		Do not know if programs or services are being offered	Not familiar, but do know that programs are being offered	Somewhat familiar	Very familiar
High School	Vocational programs in local high schools	177 (9%)	613 (33%)	692 (37%)	334 (18%)
	Area Vocational Centers (high school and adult evening classes)	279 (15%)	570 (30%)	597 (32%)	214 (11%)
Public Programs Beyond High School	Technical colleges, technical institutes, trade schools	152 (8%)	544 (29%)	717 (38%)	341 (18%)
	Junior Colleges	308 (16%)	543 (29%)	564 (30%)	269 (14%)
	Industrial Development Training	545 (29%)	575 (31%)	361 (19%)	114 (6%)
	Vocational adult evening classes	372 (20%)	614 (33%)	517 (27%)	150 (8%)
	Apprenticeship programs	368 (36%)	485 (26%)	312 (17%)	97 (5%)
	Private Vocational Schools (aviation schools, business colleges, etc., operated as business enterprises)	627 (33%)	557 (30%)	353 (19%)	97 (5%)

2. What are the "hardest to fill" job vacancies that occur in your firm? (check each appropriate group)

Occupational Groups	
Technicians (white collar work involving advanced technology, ie, quality control, laboratory, or instrumentation technicians, etc.)	264 (14%)
Service Workers (custodians, watchmen, food services, etc.)	160 (8%)
Sales (retail and wholesale)	603 (32%)
Office and Clerical (stenographers, bookkeepers, stockclerks, etc.)	345 (18%)
Craftsmen (skilled - building, machining, repairing, maintaining, etc.)	740 (39%)
Operatives (semi-skilled - drivers, machine operators, assemblers, etc.)	321 (17%)
Laborers (unskilled)	240 (13%)
Not stated	127 (7%)

Note: Adds to more than 100 percent due to mutliple responses.

Program Familiarity - Item 1

Respondents were more familiar (55%) with vocational programs in local high schools than they were with high school level vocational programs in area vocational schools (43%). Respondents indicated they were most familiar with post high school programs in technical colleges/institutes and trade schools and least familiar with apprenticeship and Industrial Development Training programs. Only 24 percent of the respondents indicated familiarity with vocational programs in private vocational schools.

"Hard-to-fill" Job Vacancies - Item 2

The job categories of craftsmen and sales were indicated by respondents as the "hardest to fill" job categories in their firms. Service workers and unskilled laborers were listed as those categories the least difficult to fill.

3. In general, what are the training levels which are desired of employees of your firm? (check one alternative for each occupational group which is appropriate to your firm.)

	Vocational Education is:			
	Desirable	Not Necessary	Either way, Depending on Specific Job Needs	No Opinion
Technicians (white collar work involving advanced technology)	415 (22%)	171 (9%)	121 (6%)	214 (11%)
Service Workers (custodians, watchmen, food services, etc.)	185 (10%)	301 (16%)	132 (7%)	253 (13%)
Sales (retail and wholesale)	658 (35%)	220 (12%)	188 (10%)	132 (7%)
Office and Clerical (stenographers, bookkeepers, stockclerks, etc.)	894 (47%)	88 (5%)	159 (8%)	77 (4%)
Craftsmen (skilled - building, machining, repairing, maintaining, etc.)	806 (43%)	93 (5%)	112 (6%)	123 (7%)
Operatives (semi-skilled - drivers, machine operators, assemblers, etc.)	437 (23%)	195 (10%)	187 (10%)	145 (8%)
Laborers (unskilled)	192 (10%)	431 (23%)	177 (9%)	162 (9%)

Note: Percents do not add to 100 due to occupational groups not appropriate in all 1883 reporting firms.

4. Does your firm find it necessary to provide job training to new employees, regardless of their previous training or experience? (check one of the columns if an occupational group is appropriate to your firm.)

	Yes, the type training required is:		No,
	OJT (on the job, with supervision)	formal, in a classroom or shop environment	additional training is not required
Technicians (white collar work involving advanced technology)	476 (25%)	52 (3%)	120 (6%)
Service Workers (custodians, watchmen, food services, etc.)	338 (18%)	16 (1%)	194 (10%)
Sales (retail and wholesale)	876 (47%)	82 (4%)	106 (6%)
Office and Clerical (stenographers, bookkeepers, stockclerks, etc.)	871 (46%)	83 (4%)	105 (6%)
Craftsmen (skilled - building, machining, repairing, maintaining, etc.)	706 (37%)	88 (5%)	144 (8%)
Operatives (semi-skilled - drivers, machine operators, assemblers, etc.)	583 (31%)	40 (2%)	135 (7%)
Laborers (unskilled)	539 (29%)	18 (1%)	218 (12%)

Desired Training Levels - Item 3

The respondents felt that vocational education was most desirable for office and clerical workers, craftsmen and sales personnel and not necessary for unskilled laborers and service workers.

Job Training for New Employees - Item 4

Of the job categories indicated, an average of 36% of the respondents stated that some job training was required for new employees regardless of their previous training or experience; whereas, on the other hand, only an average of 8% stated additional training was not required. Predominantly, the training required was on-the-job (OJT) with experience rather than in a formal classroom or shop environment. Respondents indicated that on-the-job training was required for sales workers, office and clerical workers and skilled craftsmen.

5. Does your firm provide pre-supervisory or supervisory training for your present employees?

1285 (68%)	Yes, it is done: (check only one of the following)
1018 (54%)	internally, within the firm
21 (1%)	externally, by public or private educational institutions
233 (12%)	both ways, internally and externally
13 (1%)	not stated
519 (28%)	No
79 (4%)	Not stated

6. Does your firm provide job training programs for present employees? (check one of the columns if an occupational group is appropriate to your firm.)

	NO	YES, it is done:		
		Internally, within the firm	Externally, by public or private educational institutions	Both ways, internally and externally
Technicians (white collar work involving advanced technology)	305 (16%)	253 (13%)	29 (2%)	130 (7%)
Service Workers (custodians, watchmen, food services, etc.)	348 (18%)	217 (12%)	9 (0%)	27 (1%)
Sales (retail and wholesale)	309 (16%)	543 (29%)	20 (1%)	149 (8%)
Office and Clerical (stenographers, bookkeepers, stockclerks, etc.)	326 (17%)	523 (28%)	28 (1%)	103 (5%)
Craftsmen (skilled - building, machining, repairing, maintaining, etc.)	298 (16%)	408 (22%)	35 (2%)	168 (9%)
Operatives (semi-skilled - drivers, machine operators, assemblers, etc.)	280 (15%)	396 (21%)	14 (1%)	49 (3%)
Laborers (unskilled)	337 (18%)	346 (18%)	7 (0%)	25 (1%)

Note: Percents do not add to 100 due to occupational groups not appropriate in all 1883 reporting firms.

7. How would you compare public vocational education graduates employed by your firm with other individuals employed for similar positions? (check one)

Don't Know	No objective basis for rating
502 (27%)	639 (34%)

OR

Vocational program graduates are:		
Not as good	About the same	Better
56 (3%)	179 (10%)	403 (21%)

Pre-Supervisory and Supervisory Training - Item 5

Sixty-eight percent of the respondents stated that their firms conducted pre-supervisory and supervisory training for their employees. Fifty-four percent of the firms conducted their training internally, within the firm, and only one percent conducted their training externally in public or private institutions. Twenty-eight percent of the respondents indicated that their firms did not give pre-supervisory or supervisory training.

Employee Job Training - Item 6

An average of 26% of the firms reported they provided job training programs for their employees in the job categories indicated and only sixteen percent stated they provided no such training. Predominantly, the respondents indicated that, when such training was conducted, it was done internally within the firm, rather than externally. Only four percent of the respondents stated they conducted their job training programs both internally and externally.

Comparison of Vocational Graduates With Other Employees - Item 7

When comparing vocational education graduates employed by their firm with other individuals employed for similar positions, 21 percent of the respondents indicated that vocational program graduates were better as opposed to three percent who stated they were not as good. However, it should be noted that the remaining respondents (61%) indicated that they did not know or had no objective basis for rating the two groups.

8. How would you rate the more recently employed vocational students as a group on each of the areas listed?

Please rate them by entering the numbers from the following scale:

1 - Excellent
2 - Adequate
3 - Poor
4 - Don't know

(Enter NA if an occupational group is not appropriate to your firm)

	Technicians	Service Workers	Sales Workers	Office and Clerical	Craftsmen	Operatives	Laborers
Reading skill	2.07	1.74	2.07	2.18	1.85	1.76	1.53
Math skill	2.05	1.76	1.93	2.08	1.83	1.63	1.43
Communication skills	1.98	1.80	2.04	2.05	1.80	1.77	1.66
Human Relations	1.96	1.91	2.11	2.14	1.89	1.87	1.79
How to apply for a job	1.85	1.66	1.85	1.98	1.72	1.73	1.56
How the free enterprise system works	1.72	1.54	1.73	1.80	1.58	1.53	1.46
Required job skills and knowledge	2.03	1.84	1.90	2.06	1.90	1.82	1.71

9. To what extent has your firm been involved in improving Alabama's vocational education programs?

194 (10%)	Don't know
1078 (57%)	No involvement
524 (28%)	Somewhat involved
87 (5%)	Highly involved

If involved, please indicate which of the following ways your firm is involved:

322 (53%)	by providing work station(s) for cooperative programs
263 (43%)	through informal contacts with vocational instructions
145 (24%)	by serving on advisory committees
69 (11%)	by providing instructors (who are not compensated)
145 (24%)	by providing equipment and supplies
33 (5%)	by providing funds for capital improvement
20 (3%)	not stated

Rating of Vocational Students - Item 8

In seven selected academic and social skills areas, the respondents indicated that in general the more recently employed vocational education program graduates were adequately prepared.

Involvement in Vocational Education Programs - Item 9

A majority (57%) of the respondents stated that, to their knowledge, their firms had not been involved in improving vocational education programs. Those indicating some degree of involvment (33%) stated they did so by providing cooperative education work stations and assisted in improving programs through informal contacts with vocational instructors. Only 145 or 8% of the 1383 respondents reported that their firms were involved with vocational advisory committees.

10. Which of the following program delivery actions would result in improving Alabama's vocational education programs? (please check the four most important.)

435 (23%)	Provide more training programs for industrial expansion
675 (36%)	Provide more vocational evening classes to upgrade the existing labor force
673 (36%)	Base vocational education offerings on the availability of jobs
643 (34%)	Develop new vocational education programs for new and emerging occupations
976 (52%)	Develop broader vocational education programs in the high schools
994 (53%)	Provide better or more vocational counseling in the high schools
934 (50%)	Seek better or more cooperation between business and industry and the schools in placing qualified vocational graduates
775 (41%)	Systematically follow up vocational program graduates to determine the degree of their job satisfaction and the quality of their training
195 (10%)	Not stated

11. Which of the following actions affecting the instructional process would result in improving Alabama's public vocational education programs? (check the four most important.)

794 (42%)	Obtain more involvement of local business and industry personnel in vocational program development
1016 (54%)	Provide for more related on-the-job experiences to supplement classroom teaching
659 (35%)	Use more people from business and industry in the instructional process
597 (32%)	Update vocational teachers' occupational skills and knowledge
362 (19%)	Update instructional shop equipment and facilities
979 (52%)	Make classroom assignments, shop work and projects more like real work environments
634 (34%)	Give more emphasis to basic school skills relating to occupations
1065 (57%)	Put more emphasis on the development of work habits and attitudes in the instructional programs
258 (14%)	Not stated

Program Improvement By Program Delivery Actions - Item 10

The respondents selected as the four most important delivery system actions that would result in improving Alabama's vocational education programs, better vocational counseling (53%), broader vocational education programs (52%), better cooperation between business and industry and the schools (50%), and a systematic follow-up of vocational education program graduates (41%).

Program Improvement through the Instructional Process - Item 11

A majority of the respondents felt more emphasis should be placed on the development of work habits and attitudes, more related on-the-job experiences to supplement classroom teaching and making classroom assignments more like the real work environment. Additionally 41 percent felt that there should be more involvement of local business and industry personnel in vocational program development.

FINDINGS AND CONCLUSIONS

1. A majority of the business' and industries were relatively uninformed about vocational education programs.
2. Industry-wide, only one out of four of the firms surveyed were familiar with Alabama's Industrial Development Training Program.
3. The majority of industry groups were only familiar with vocational programs at high school and technical college level.
4. Manufacturers were the most familiar with almost all types of vocational education programs. The next most familiar industry groups were services and finance, insurance and real estate.
5. Firms responding to the survey indicated that jobs as craftsmen, particularly in construction and manufacturing, and sales, particularly in wholesaling and retailing, are hard to fill.
6. In general, Alabama's businessmen believe that vocational education is necessary for technicians, sales personnel, office and clerical workers, craftsmen and operative type workers.
7. Business and industry tend to provide on-the-job training for practically all of its new employees.
8. Approximately 7 out of 10 firms provide pre-supervisory and supervisory training for present employees utilizing their own personnel and facilities.
9. In general, industry groups offer job training programs for employees by utilizing their own personnel and facilities.
10. Business and industry provide very little job training for employees engaged as service workers or unskilled labor.
11. A majority of firms could not objectively rate their vocational education graduates.
12. In those instances where an objective rating could be provided, vocational education graduates were rated higher than non-vocational education graduates.
13. In selected academic and social skills areas, vocational education graduates in all occupational categories were rated as generally adequate.
14. Only 1 in 3 of the firms had been involved with improving vocational education programs.
15. Less than one in ten of the firms were represented on local advisory councils and committees.
16. Vocational counseling was seen as the most important change necessary for improving vocational education programs.
17. There is a need for more cooperation between the schools and business and industry in order to improve vocational education.
18. About 4 in 10 firms believe that a systematic follow-up of vocational education program graduates is necessary to determine job satisfaction and quality of training.
19. One in three firms believe that vocational education could be improved by providing more vocational evening classes to upgrade the existing labor force, basing vocational education programs on the availability of jobs, and developing new vocational education programs for new and emerging occupations.

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